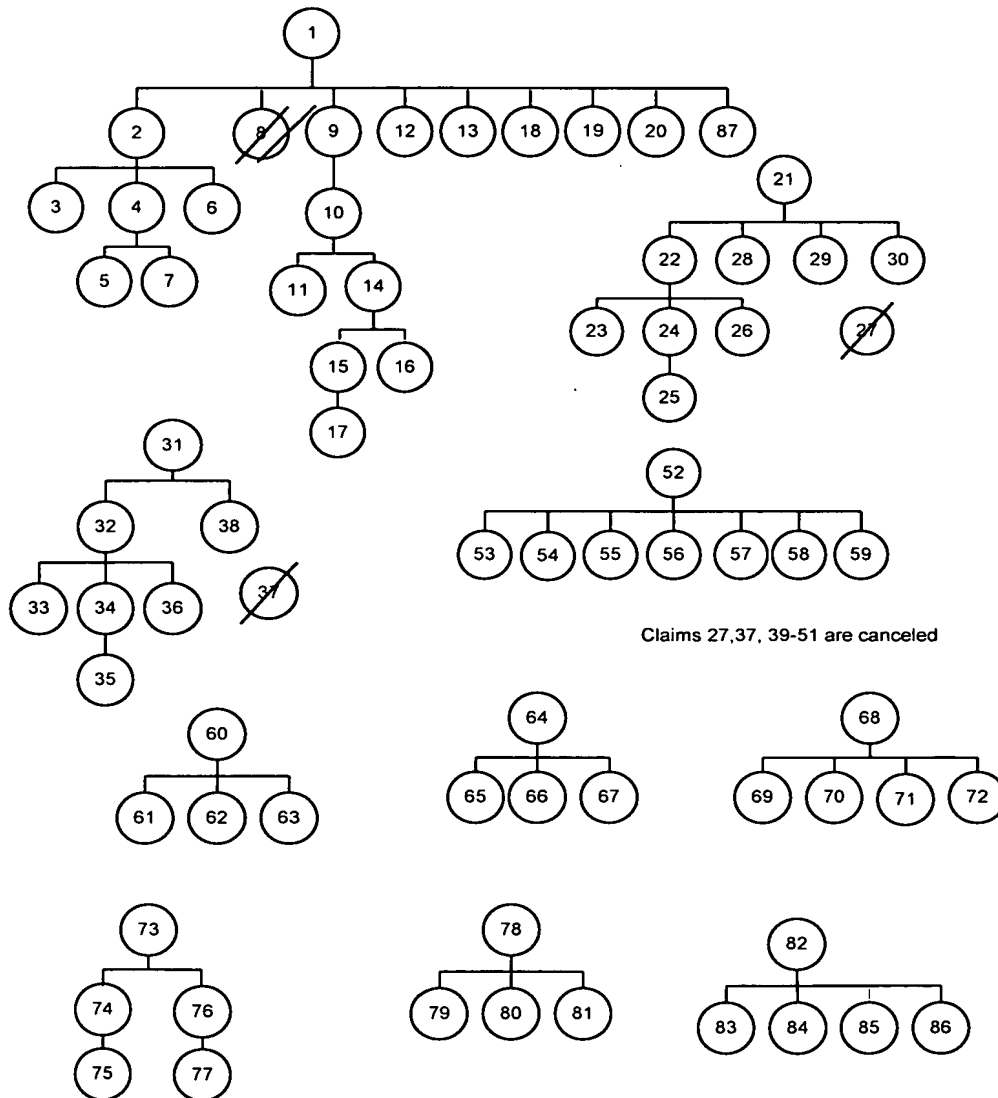


REMARKS

Below is a diagram illustrating the relationship among the pending claims 1-7, 9-26, 28-36, 38, and 52-87. Claim 8 is canceled herein. Claims 27, 37 and 39-51 have been previously canceled. Claims 1-7, 9-26, 28-36, 38, and 52-81 were previously presented for examination. Claims 82-87 are new claims.



Applicants acknowledge with appreciation the personal interview granted to the applicant and one of his attorneys on September 22, 2005. The interview is recorded in the Interview Summary form (PTOL-413). At the interview, applicants and their attorney discussed with the examiners the basis for the "essential element" requirement in paragraph 4 of the Office action and its application to the claims of

this application. No agreement was reached other than the examiners' suggestion to incorporate elements of dependent claims into the independent claims rejected for missing "essential elements." For example, in the Interview Summary form, the examiners offered the suggestion of incorporating the substance of dependent claims 8 and 9 into independent claim 1 in order to overcome the "essential element" rejection. However, for reasons discussed infra, applicants have not made the recommended amendment in this response to the Office action with respect to overcoming the rejections based on missing "elements."

THE SECTION 112 REJECTIONS OF PARAGRAPH 4

In the process of preparing a formal response to the Office action, one of applicants attorneys, John Conklin, telephoned examiner Herng-der Day on February 11, 2006 to again discuss the basis for the "essential element" requirement the Office action says is found in 35 U.S.C. § 112. Examiner Day's supervisory examiner, Ms. Kamini Shah, joined examiner Day on the telephone call. As a result of that conversation, it was agreed that further examination would not result in the rejection of the claims for missing an "essential element" simply because of their scope.

In citing M.P.E.P. §2172.01 to support the "essential element" rejections in paragraph 4, the Office action confuses descriptions of embodiment(s) with essential elements of the invention. They are not one in the same. If they were, all claims would be limited to the specific embodiment illustrated and described in the detailed description.

Moreover, the "essential element" rejection in paragraph 4 of the Office action states the rejection is based on omitted essential elements and relies on the second paragraph of Section 112. However, Section 2172.01 of the M.P.E.P. states the rejection for missing essential elements is based on the first paragraph of Section 112. Section 2172.01 of the MPEP states the second paragraph of Section 112 provides a basis for requiring interrelationships among "essential elements."

Assuming the Office action intended to rely on the first paragraph of Section 112, Section 2172.01 of the M.P.E.P. cites to M.P.E.P. §2164.08 (c), which warns against making "essential element" rejections of the type set forth in paragraph 4.

Limiting an applicant to the preferred materials in the absence of limiting prior art would not serve the constitutional purpose of promoting the

progress in the useful arts. Therefore, an enablement rejection based on the grounds that a disclosed critical limitation is missing from a claim should be made only when the language of the specification makes it clear that the limitation is critical for the invention to function as intended. *Broad language in the disclosure, including the abstract, omitting an allegedly critical feature, tends to rebut the argument of criticality.*

M.P.E.P. §2164.08 (c) (Emphasis added). Neither the summary of applicants invention nor the abstract recites what the Office action now alleges to be “essential elements.” in keeping with the M.P.E.P., this tends to rebut the argument of criticality made in connection with the Section 112 rejections of Paragraph 4 of the Office action. M.P.E.P. §2164.08 (c). The record does not support the assumptions made concerning “critical elements” in applicants invention and, therefore, the rejection should not be repeated as agreed to between the examiners and the applicant.

Turning to the specific claims rejected under Section 112, paragraph 4 of the Office action includes rejections of claims 1, 21, 52, 60, 64 and 73 for missing an “essential element.” These claims have been amended, but not to overcome this Section 112 rejection. The remaining independent claims 31, 68 and 78 were not rejected for missing an “essential element.” However, claim 31 was rejected for a phrase missing an antecedent basis (paragraph 4-6 of the Office action). The claim has been amended to overcome this rejection. Claim 68 was allowed (paragraph 7 of the Office action). Independent claim 78 was not rejected under section 112. However, claim 78 and its dependent claims 79-81 were rejected as describing the same invention found in applicants earlier U.S. Patent No. 5,887,914.

The remaining rejections of the claims under Section 112 are directed to problems with proper antecedent basis for terms or phrases in both independent and dependent claims (i.e., Para. 4-2, 4-3, 4-4, 4-6, 4-8, 4-10 and 4-12). All of these lack-of-antecedent-basis rejections have been addressed and overcome by appropriate amendments to the claims in this response.

THE PRIOR ART REJECTIONS

Paragraph 8 of the Office action states all of the claims except claims 78-81 are allowable over the art of record and would be in condition for allowance if the Section 112 rejections were overcome.

As for claims 78-81, applicant has amended claim 78 to expressly require “modeling a shape of a load of heaped material in three dimensions, where the shape

is substantially conical and the *modeling incorporates information about angles of repose in three dimensions for a particular heaped material to be hauled by the vehicle*” (Emphasis added). To reject claims 78-81, paragraph 6 of the Office action relies on an aspect of the cited ‘914 patent concerning designing a body for a haulage vehicle to haul both coal and overburden. Although the patent teaches different heaping characteristics for these different materials (e.g., Figs. 11C), it does so assuming a fixed location for the load’s center of gravity during the process of designing the body. The ‘914 patent does not teach (1) using heaping characteristics derived from observation of material actually intended to be hauled and (2) collecting heaping information in three dimensions. Instead, the ‘914 patent uses only two-dimensional “profile” heaping angles and follows the “one-size-fits-all” approach of the prior art by assuming that each of all coal and all overburden heaps in the same way. Claim 78 requires modeling a load based on information obtained about the heaping characteristics of “*a particular material to be hauled by the vehicle.*” As the specification teaches, material heaps differently because of local characteristics that are not universally shared by all material of any category. Furthermore, the specification also teaches that loading techniques that may be peculiar to a mine site affect the loading characteristics of the material to be hauled. Nothing in the ‘914 patent suggests any of this.

CORRECTED DRAWINGS REQUIREMENT

Paragraph 2 of the Office action requires correction of the drawings to include the legend “Prior Art” for drawing figures 1-3, 21 and 22. According to the Office action, the label should be added because “only that which is old is illustrated.” Contrary to the Office action’s assertions, drawing figures 1-3, 21 and 22 are not merely illustrations of the prior art and labels so indicating would be wrong or at least confusing. Figures 1-3, 21 and 22 support text describing the process of designing a body according to a detailed embodiment of the invention. Labeling these drawings “prior art” as proposed by the Office action would suggest aspects of the design process referencing the drawings are in the prior art, which they are not.

Applicants request reconsideration of this requirement and will hold in abeyance submission of corrected drawings until the examiner has an opportunity to consider applicants argument. However, submitted with this amendment and under a

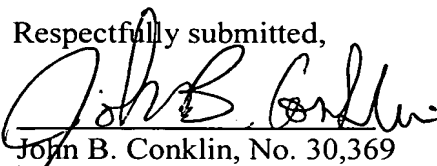
In Re Application of: Hagenbuch
U.S. Serial No. 09/333,379

separate paper are replacement drawings intended to substitute for the informal drawings originally filed in the application.

CONCLUSION

The amendments in this response address all of the rejections of the claims except for the "essential element" rejections, which applicants understand will be not be repeated. The examiner will note that many of the claims have been amended beyond that required to overcome the rejections. This application has been for almost seven years. During that time, the applicant has attempted to provide claims in a form in keeping with the subject matter identified by the previous examiner as allowable subject matter. Applicants have been frustrated by the varying rejections that seem to always leave the claim set in a form requiring yet another round of amendments. Over time, these efforts to achieve allowance of the entire claim set have caused the claims to become unfocused. The amendments in this response not only are aimed at overcoming the rejections in the present Office action, but also to re-focusing the claims on the applicants invention.

With these amendments, the application is in good and proper form for allowance, and the examiner is respectfully requested to pass this application to issue. If, in the opinion of the examiner, a telephone conference would expedite the prosecution of the subject application, the examiner is invited to call the undersigned attorney.

Respectfully submitted,

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